## **PCT**

REC'D 1 OCT 2004

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

International application No.  PCT/US03/31119  02 October 2003 (02.10.2003)  03 October 2002 (03.10.2002)  International Patent Classification (IPC) or national classification and IPC  IPC(7): B01D 46/00 and US CL.: 055/385.6,385.7,524, DIG.5; 174 35R,35MS; 361/816,818; 427/244  Applicant  LAIRD TECHNOLOGIES, INC.  1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.  2. This REPORT consists of a total of sheets, including this cover sheet.  This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of sheets.  3. This report contains indications relating to the following items:  I Basis of the report  II Priority  III Non-establishment of report with regard to novelty, inventive step and industrial applicability IV Lack of unity of invention  V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  VI Certain documents cited  VII Certain observations on the international application	Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification Preliminary E	n of Transmittal of International kamination Report (Form PCT/IPEA/416)						
PCT/US03/31119 02 October 2003 (02.10.2003) 03 October 2002 (03.10.2002)  PCT/US03/31119 02 October 2003 (02.10.2003) 03 October 2002 (03.10.2002)  International Patent Classification (IPC) or national classification and IPC  IPC(7): B01D 46/00 and US Cl.: 055/385.6,385.7,524, DIG.5; 174 35R,35MS; 361/816.818; 427/244  Applicant  LAIRD TECHNOLOGIES, INC.  1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.  2. This REPORT consists of a total of sheets, including this cover sheet.  In this report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of sheets.  3. This report contains indications relating to the following items:  I Basis of the report  II Priority  III Non-establishment of report with regard to novelty, inventive step and industrial applicability  IV Lack of unity of invention  V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  VI Certain documents cited  VII Certain observations on the international application	37906.107289	International filing date (day/mc	onth/year)	Priority date (day/month/year)						
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Date of submission of the demand	Date of submission of the demar	nd ,	Date of comple	tion of this report						
03 May 2004 (03.05.2004) 29 September 2004 (29.09.2004)			29 September 2004 (29.09.2004)							
Name and mailing address of the IPEA/US  Authorized officer	Name and mailing address of the IPEA/US		Authorized offic	er (1) 1) 1/1/						
Mail Stop PCT, Attn: IPEA/ US Commissioner for Patents  Duane S. Smith	Mail Stop PCT, Attn: IPEA/ US		Duane S. Smith	il O En						
P.O. Box 1450 Alexandria, Virginia 22313-1450 Telephone No. 571-272-0987	P.O. Box 1450 Alexandria, Virginia 22313-1450	0		PU						
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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International applic	No.
PCT/US03/31119	

I.,	Basis	s of the report				
1.	With	regard to the elements of the international application:*				
		the international application as originally filed.				
	図	the description:				
		pages 1-17 as originally filed				
		pages NONE , filed with the demand				
1	K-3	pages NONE, filed with the letter of				
1	$\boxtimes$	the claims:				
		pages None , as originally filed pages None , as amended (together with any statement) under Article 19				
		pages NONE , filed with the demand				
		pages 18-24 , filed with the letter of 24 August 2004 (24.08.2004)				
		Also describes				
•		the drawings: pages 1-10 , as originally filed				
		pages NONE , filed with the demand				
}		pages NONE , filed with the letter of				
		the sequence listing part of the description:				
1		pages NONE , as originally filed				
1		pages NONE, filed with the demand				
1,	<b>337:4</b> 1	pages NONE , filed with the letter of				
1 ~	lang	n regard to the language, all the elements marked above were available or furnished to this Authority in the tage in which the international application was filed, unless otherwise indicated under this item.				
1	Thes	se elements were available or furnished to this Authority in the following language which is:				
		the language of a translation furnished for the purposes of international search (under Rule23.1(b)).				
		the language of publication of the international application (under Rule 48.3(b)).				
		the language of the translation furnished for the purposes of international preliminary examination (under Rules				
		55.2 and/or 55.3).				
3.	With	n regard to any nucleotide and/or amino acid sequence disclosed in the international application, the				
		national preliminary examination was carried out on the basis of the sequence listing:				
ļ	H	contained in the international application in printed form.				
Ì	H	filed together with the international application in computer readable form.				
	H	furnished subsequently to this Authority in written form.				
}	H	furnished subsequently to this Authority in computer readable form.				
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.				
		The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.				
4.		The amendments have resulted in the cancellation of:				
		the description, pages NONE				
		the claims, Nos. 2				
		the drawings, sheets/fig NONE				
5.	لـا	This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**				
* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in						
this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).  ** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.						



International application No. PCT/US03/31119

V.	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement						
1.	STATEMENT						
	Novelty (N)	Claims	1,3-36	YES			
	• • •	Claims	NONE	NO			
	Inventive Step (IS)	Claims	1,3-36	YES			
		Claims	NONE	NO			
	Industrial Applicability (IA)	Claims	1,3-36	YES			
		Claims		NO			
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## 2. CITATIONS AND EXPLANATIONS

Claims 1, and 3-36 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the claimed features of an air filter having electromagnetic energy absorptive characteristics including a porous substrate and an electrically absorptive material distributed substantially uniformly through the porous substrate, the electrically absorptive material being an electrical absorber in particulate form suspended in a binding agent nor the method of forming such an air filter. The closest prior art of record to Pierce(US Patent No. 5,431,974) and Hedrick et al(US Patent No. 5,506,047) disclose electromagnetic energy adsorptive filters but differ from the instant invention in that they fail to recite the feature of an electrically absorptive material distributed substantially uniformly through the porous substrate, the electrically absorptive material being an electrical absorber in particulate form suspended in a binding agent. Pierce and Hedrick et al only disclose a coated electrically conductive layer and not an electrically conductive material distributed through a porous substrate wherein the material is an electrical absorber in particulate form suspended in a binding agent. Thus the instant invention is both novel and unobvious over the prior art of record.

Claims 1 and 3-36 meet the criteria set out in PCT Article 33(4), and thus the instant invention has industrial applicability because the subject matter claimed can be made or used in industry.

Form PCT/IPEA/409 (Box V) (July 1998)